

October, 1966

HISTORY OF
JOHN INGLIS CO. LIMITED

file

1. First Period 1859 - 1936

On July 27, 1859 Thomas Mair and John Inglis, machinists of Dundas, Ontario, leased a foundry and water rights in the City of Guelph. The premises were located at Bridge and Perth (now Arthur) Streets adjacent to the Speed River. Legend has it that Inglis simultaneously purchased the equipment of a small machine shop in Dundas which was transferred to Guelph. Business was carried on at that location until 1881 and a rough sketch indicates that the following buildings were in use

60' x 150' two storey machine shop
40' x 150' one storey boiler shop
35' x 100' one storey foundry
25' x 100' one storey blacksmith shop

It is believed that the original operation was by water power. However, in 1864 a steam engine and boiler were installed. The early products consisted of machinery for grist and flour mills but boilers and steam engines were produced later on. An order book of 1877 lists several Corliss steam engines. One of these 13" x 30" with boiler sold for \$1,900.00.

Some time after 1864 Mr. Daniel Hunter replaced Mr. Mair and the name of the business was changed to Inglis and Hunter.

In September, 1881 Inglis purchased part of the present site on Strachan Avenue, Toronto, and moved the operation from Guelph to the new site. About this time the business was identified as John Inglis and Sons, there being five sons engaged in different departments of the works. In 1898 William Inglis, one of the sons, took over on the death of his father.

In 1903 the company was incorporated as a limited liability company using the name The John Inglis Company Limited. At that time the manufacture of milling machinery was discontinued and marine steam engines and waterworks pumping engines were added to the line of products. In 1904 a disastrous fire swept through the premises which were then of frame construction and included a two storey machine shop, a single storey boiler shop, a foundry and auxiliary buildings. The premises were rebuilt including the heavy machine and erection shops and the first section of the Administrative Office.

Of special interest was the manufacture during the period of the main engines for the Canada Steamship Lines passenger steamers "Hamonic" and "Huron". These were among the first of such engines manufactured in Canada and they continued in service until 1945 and 1950 respectively. Significant also was the manufacture of a 6,000,000 gallons per day and two 15,000,000 gallons per day triple expansion pumping engines for the City of Toronto. These were all produced and installed prior to 1910 and the smaller engine was last used in 1963. A number of similar engines were sold across Canada and the United States.

CONFIDENTIAL

1952 - 1953

The following information was obtained from a review of the records of the Central Intelligence Agency, Department of Defense, and the Department of State, regarding the activities of the [redacted] during the period 1952-1953.

It was found that the [redacted] was active in the [redacted] and [redacted] areas, and was involved in the [redacted] of [redacted] and [redacted] in the [redacted] area.

The [redacted] was also active in the [redacted] area, and was involved in the [redacted] of [redacted] and [redacted] in the [redacted] area. The [redacted] was also active in the [redacted] area, and was involved in the [redacted] of [redacted] and [redacted] in the [redacted] area.

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In 1910 the passenger steamer "Rapids Prince" was built by the company to run the St. Lawrence River rapids between Prescott and Montreal. The hull was sub-contracted to the Polson Iron Works on the waterfront.

The John Inglis Company Limited was re-incorporated in 1913, the earnings for the previous ten years being incorporated into permanent capital. The boiler shop abutting Strachan Avenue was added in 1914. During the first World War thousands of shells and shell forgings were turned out by the plant in addition to over forty reciprocating steam marine engines for freighters, ordered by the Government. Prior to 1920 an association was formed with the Erie City Iron Works, Erie, Pa., for the manufacture of boilers of their design in Canada. In 1922 the business was reorganized with Mr. William Inglis becoming sole owner, at which time it was designated The John Inglis Company (1922) Limited.

In 1923 Webster Inglis Ltd was formed to sell grain elevating and conveying machinery. The same year S. Morgan Inglis Ltd was formed for the sale of hydraulic turbines. These products were manufactured in the Inglis shops including the turbines supplied for the Shipshaw plant of Aluminum Company of Canada.

In this latter period the company built several tugs and in 1935 built the Toronto Island Ferry which was named William Inglis in appreciation of his various contributions to the city's industrial and cultural progress. The company also made reciprocating and centrifugal pumps including the pumps for the Toronto Island filtration plant.

During the depression years of the early thirties the company suffered severe trading losses and with the death of Mr. Inglis in November, 1935, it went into receivership after the business had been carried on by various members of the Inglis family for 76 years.

2. Second Period 1936 - 1945

In June, 1937 during the period in which the plant was under receivership; British Canadian Engineering Limited, a company headed by the late Major J. E. Hahn, purchased the Inglis property and simultaneously obtained the right to use the name John Inglis Co. Limited. Shortly thereafter the plant resumed operations.

On March 31, 1938 the company secured a contract from the Canadian Government for the manufacture of Bren guns and on July 18, 1938 a parallel contract was entered into with the British Government. These contracts for a total of 12,000 guns were to be produced in three years.

With the outbreak of World War II in September, 1939, the gun making operations were greatly expanded under Government financing. The company simultaneously expanded its heavy manufacturing facilities until plants with approximately one million feet of floor space were in use. These were located on about 23 acres of ground. The plants housed over 5,000 machine tools and employed 17,800 persons at one time.

Production of several types of automatic weapons and ordnance components was undertaken and total output included 221,076 7.92 mm and .303" Bren guns, 6,666,000 Bren magazines, 151,800 9 mm Browning automatic pistols, 32,776 Browning .303" Light Aircraft machine guns Mk.II* and 50,611 Boys Anti-tank rifles.

The company developed and brought into production a 20 mm quadruple gun mount and developed a 20 mm gun. It also completed the development of a 57 mm recoilless rifle for the U.S.A. and brought it into production. A substantial part of the ordnance output was distributed under U.S. Lend Lease.

The company engaged in many wartime activities including operating a gauge block manufacturing division for the supply of other companies. Both oblong and square blocks were turned out to the highest standards.

In the same wartime period the company placed its General Engineering Division at the disposal of the Government and produced 28 reciprocating marine engines, 28 Scotch marine boilers and 14 Inglis-Yarrow water tube boilers for Corvettes, 66 2500 H.P. reciprocating marine engines and 104 boilers for cargo vessels as well as a variety of pumps, pressure vessels and other equipment. It also undertook the complete manufacture, supply and installation of the machinery for four Tribal Class destroyers, building the main steam propulsion turbines, gearing and boilers in its own plant.

The General Engineering Division during the war period revived the association with Erie City Iron Works and secured manufacturing licenses from several British and U.S. firms, notably the Worthington Corporation of Harrison, N. J., Parsons Marine Steam Turbine Co. of Wallsend-on-Tyne, England, and A. O. Smith Corporation of Milwaukee, Wis. To these was added at the war end a paper machinery license from Pusey and Jones of Wilmington, Delaware.

Early in 1945 the company acquired a controlling interest in English Electric Company of Canada, Limited.

3. Postwar Period 1946 - 1966

(a) English Electric Company of Canada, Limited

English Electric Company of Canada, Limited was incorporated August 21, 1921 to manufacture and distribute products of The English Electric Company Limited, England. For this purpose it purchased the capital stock of The Canadian Crocker-Wheeler Company Limited which had been established in St. Catharines, Ontario, in 1911 for the manufacture of electric rotating equipment, switchgear and incandescent lamps. On April 12, 1937 the company became an operating company through the acquisition of the physical property and plant of Crocker-Wheeler. In July, 1937 the lamp manufacturing department was sold.

Under a share exchange offer in 1948 English Electric Company of Canada became a wholly-owned subsidiary of Inglis. In 1953 it commenced to incur substantial operating losses and in July, 1958 Inglis acquired the business and assets of English Electric and carried on the operation at St. Catharines as English Electric Canada, Division of John Inglis Co. Limited.

In 1961 Inglis closed down the English Electric Canada Division plant at St. Catharines and moved this Division to new facilities of John Inglis heavy engineering plant at Scarborough.

Early in 1966 in the course of phasing out the manufacture of heavy plant and equipment to which reference is made later, Inglis sold the shares of English Electric Company of Canada, Limited to The English Electric Company Limited of England.

(b) General Engineering Division

The associations which had been formed with other companies were retained and others added from time to time. Stationary boilers, marine turbines, marine boilers, condensers, evaporators and many kinds of pumps were produced. Several paper machines were undertaken and a complete mill for the manufacture of fine paper from bamboo was supplied and erected at Ballapur, India, leading up to the supply of all machinery and equipment for a 60,000 tons per annum pulp and paper mill for Chile, S.A. in 1961.

Glass lined beer storage tanks manufactured under the A. O. Smith license were also an important product line.

In 1946 Production Castings Limited was incorporated to supply iron castings to Inglis and English Electric Canada but in July, 1949 this subsidiary was discontinued.

The capital of John Inglis was increased from time to time and on June 15, 1950 The English Electric Company Limited, England, obtained control. At the present time it owns approximately 56% of the shares of the company. This relationship with England resulted in emphasis on products of English Electric U.K. design under a technical license agreement, including a return to the manufacture of hydraulic turbines.

Outstanding among these developments was the Y-100 naval turbine developed by English Electric U.K. for the British Admiralty and adopted by Canada for the St. Laurent destroyers and later on the Restigouche class frigates. In 1951 the company was requested by the Government to set up a facility for the manufacture of 16 shipsets per annum of Y-100 naval turbines. Negotiations led to a plant of this capacity being completed under Government ownership, managed by Inglis, at Scarborough, Ontario. Thirteen twin shaft shipsets were produced for destroyers and seven single shaft sets for frigates.

When the demand for the high annual output of naval turbines for which the Scarborough plant was designed did not materialize English Electric U.K. agreed to purchase the plant from the Canadian Government and lease it to Inglis. This took place on December 28, 1955 under an agreement which included the maintenance of a Y-100 facility for ten years.

Inglis equipped the plant with a 42 ft. vertical boring mill and other equipment for the manufacture of water wheel turbines. It produced a large number of these including the sixteen turbines for the Canadian St. Lawrence development and the four of 200,000 H.P. each for the Aluminum Company Chute-des-Passes project which developed 256,000 H.P. each and which at that time were among the largest in the world.

The company also equipped the plant for the manufacture of steam turbo-generator sets and produced the 100,000 kilowatt turbine for the Thunder Bay set of Ontario Hydro and two 60,000 kilowatt turbines for Cairo, Egypt.

On May 31, 1962 Inglis purchased the Scarborough plant from The English Electric Company U.K. In the meantime, in 1961, Inglis had erected an addition to the plant to house its English Electric Canada, Division, the final result being a 310,000 sq. ft. high bay plant on 40 acres of land.

While this was going on the Strachan Avenue shops of the General Engineering or rather Equipment Division as it had become known, were rearranged for plate fabrication to support the Scarborough machine shop. Two notable products were the NRU reactor for Chalk River, Ontario, and a smaller unit for India. Inglis undertook the development of the control rods for the former.

A refrigeration and air conditioning division was operated from 1950 to 1958.

Early in 1965 Canadian General Electric offered to purchase the Inglis Scarborough plant. In the light of continuing unsatisfactory operating results of the Inglis heavy equipment division, this offer was accepted and the sale of the plant became effective as of June 30, 1965. C.G.E. completed the outstanding contracts as a sub-contractor for Inglis and undertook to manufacture a 220 megawatt steam turbo-generator set for the Rajasthan project of the Government of India as a sub-contract of the English Electric Company of Canada, Limited.

(c) Consumer Products Division

At the close of the war Inglis had in addition to its General Engineering Division staff a staff of specialists with precision mass production training and experience. Some of these had previous experience in the home appliance field. It accordingly purchased from the Government two of the gun making buildings which had been added during the war to its original property at Strachan Avenue with machinery and equipment and sought products which it could manufacture. This action resulted in license agreements with Shakespeare Company, Kalamazoo, Michigan, for fishing tackle, Schultz Manufacturing Company, Elkhart, Indiana, for house trailers, Sundstrand Corporation, Rockford, Illinois, for oil burner pumps, A. O. Smith Corporation, Milwaukee, Wisconsin, for domestic water heaters, Tappan Stove Company, Mansfield, Ohio, for stoves, and Whirlpool Corporation (formerly known as Nineteen Hundred Corporation) for home laundry equipment. The company also developed and produced a low alloy high strength liquid propane gas cylinder of 100 lbs. capacity.

The Shakespeare association was successful until market preference swung to spinning type reels and the house trailers flourished for a short period of high demand and thereafter these lines were discontinued. L.P.G. cylinders were discontinued in 1959. Water heaters and oil burner pumps have been produced successfully through this period.

The most important connections have been with Whirlpool, Sundstrand and A. O. Smith Corporation.

The Whirlpool Corporation has become the largest manufacturer of home laundry equipment in the U.S.A., manufacturing and selling appliances under its own name and also the Kenmore line for Sears, Roebuck. Inglis commenced making the Whirlpool wringer washer in 1946 and added the automatic washer in 1950. These were followed with electric and gas dryers and more recently with dishwashers. Inglis also manufactures a line of these products for Simpsons-Sears and RCA Whirlpool in Canada.

The relationship with Whirlpool has been broadened by an agreement in 1966 for Inglis to manufacture domestic electric refrigerators and freezers under an additional licensing agreement from Whirlpool. A site for a new plant in this connection has been purchased in Saltfleet Township near Hamilton, Ontario, and financial assistance is being provided by Whirlpool. This assistance in the form of a \$2,500,000 loan after 1969 may be converted into Inglis shares at the option of Whirlpool.

With the closing down of the Equipment Division and the turning over of the electric agency line to the English Electric Company of Canada, Limited as a subsidiary of The English Electric Company Limited of England, the consumer products line became in 1966 the main business of the company and Inglis has become the leading producer of domestic automatic laundry appliances in Canada.

AUG. 1969. E. ELECTRIC INTEREST REDUCED TO 30 PER CENT.
WHIRLPOOL CORP. BANTON HARBOR MICH GETS 33%
ITS INTEREST WILL RISE TO 63% BY 1971.

